

of nerves, as in insects—two for the labium (*nervi labii inferioris*), two for the maxillæ (*nervi maxillares*), and two for the mandibles (*nervi mandibulares*). The third ganglion of the head, which I propose to name the *pedomaxillary ganglion*, rests upon a peculiar lamina, the *pedomaxillary plate**, and it furnishes one pair of nerves for the two jaw-feet (*nervi pedomaxillares*). The trunk possesses seven ganglia; that is to say, there is a ganglion for each segment. The first ganglion of the trunk is very small, although larger than the pedomaxillary ganglion; all the other ganglia of the trunk have the same volume. From each of these ganglia originates a pair of nerves for the feet—connectives separate from the nerves for the muscles and the skin of the segment, as described by H. Rathke. In this respect the pedomaxillary ganglion perfectly resembles those of the trunk; for, besides the nerves of the jaw-foot, it emits two other nerves for the posterior part of the head. It would seem, as shown by the innervation and the presence of a distinct ganglion, that the posterior part of the head of *Idothea* is a thoracic segment amalgamated with the head. The latter is therefore an imperfect cephalothorax, but still morphologically different from the heads of insects. There are four postabdominal ganglia, which are much smaller than the ganglia of the trunk; the last is the largest; the others are of equal size. The first, second, and third only furnish one pair of nerves for the corresponding segments; while the last emits four pairs of nerves. There is also a sympathetic nerve, represented by an unpaired trunk, placed between the connectives of the ganglionic chain, and interrupted by the ganglia—that is to say, exactly the same as that which F. Leydig has described in *Porcellio scaber* †, Rathke saw it, but did not recognize it as the sympathetic.—*Comptes Rendus*, March 22, 1880, p. 713.

On a Peculiar Modification of a Parasitic Mite.

By M. MÉGNIN.

In a great many insects parasitic on plants, the female, when ready to deposit her eggs or to give birth to larvæ, is seen to cover herself with a cottony or byssoid secretion, which serves not only to protect herself, but also to preserve her progeny from any injury during the first period of life. This is observed in most cochineal insects and in the woolly Aphis.

Certain Arachnida, also plant-parasites, possess the same peculiarity; and a species of *Tetranychus* has received its name (*T. telarius*) precisely on this account. In this case the cottony secretion of the mite forms a true nidification, destined to protect the

* E. Brandt, 'Ueber eine Cephalothoracalplatte des gemeinen Schachtwurmcs (*Idothea entomon*),' St. Petersburg, 1877.

† Vom Bau des thierischen Körpers (Tübingen, 1864), p. 251; and Tafeln zur vergl. Anat. pl. vi. fig. 7.

ova during the various phases of incubation and hatching ; for the female does not remain fixed during oviposition like the *Coccidæ* and the *Aphis* above mentioned, but lays successively in several nests.

Up to the present time nothing of this kind had been observed among the *Acarina* parasitic upon animals ; but chance has just made me the witness of an exactly similar fact upon a bird. I was preparing to dissect an American Grosbeak (*Cardinalis fulgens*, Bonap.), when, having stripped off the feathers of the thorax, I was struck by the presence of numerous white spots with which the naked median and sternal part of the skin which covers the lower part of the breast was sprinkled. I have preserved this portion of the skin stretched upon a plate of glass.

Under the lens these little white patches have the aspect of small spots of mould ; but under the microscope, especially after soaking in glycerine, which renders them diaphanous, these spots are found to be composed of a fine tissue, beneath which appears a group of eggs in different stages of incubation, empty egg-shells, and small yellow *Acarines* in process of escaping from these envelopes, or which have already escaped from them. These *Acarines* are nothing but octopod larvæ, which, from the anatomical characters of the rostrum and legs, it is easy to recognize as belonging to the species which I have named *Cheyletus heteropalpus* in a memoir devoted to the description of a new group of *Acarina* parasitic on Rodents and Birds, with which I have established a tribe of *Cheyletides parasites* *.

In his fine investigation of the anatomy and physiology of the plumicolous *Sarcoptides* †, Professor C. Robin has shown that these deposit their eggs in small masses at the axils of the barbs of the feathers. I thought that my parasitic *Cheyletides* acted in the same manner, seeing that they live with them and even hunt after them ; but I had never met with their eggs, which are remarkable and very large (0.18×0.11 millim.), with those of the plumicolous *Sarcoptides*. The observation which I have just described shows how these eggs are laid and what precautions the *Cheyletides* take to protect them—a fact which singularly approximates them to the *Tetranychis*, with which, moreover, they are allied by their organization. It shows, in addition, that the larvæ of this species are octopod when first hatched—a character which is not possessed by those of the *Tetranychis*, nor even by those of the wandering *Cheyletides*, such as *Cheyletus eruditus*.—*Comptes Rendus*, June 7, 1880, p. 1371.

* Journ. de l'Anat. et Physiol. 1878.

† Comptes Rendus, April 30, 1868.